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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/672,812	09/29/2000	Brian G. Wall	85773-332	2242

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EXAMINER	
JAMAL, ALEXANDER	
ART UNIT	**PAPER NUMBER**
2643	13

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)	
	09/672,812	WALL, BRIAN G.	
	Examiner	Art Unit	
	Alexander Jamal	2643	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 25 June 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☐ The proposed amendment(s) will not be entered because:

   (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);

   (b) ☐ they raise the issue of new matter (see Note below);

   (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.

4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. ☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *Please see attached " Response to Arguments" (2 pages).*

6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. ☐ For purposes of Appeal, the proposed amendment(s) a)☐ will not be entered or b)☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: _____.

   Claim(s) rejected: *1-19*.

   Claim(s) withdrawn from consideration: _____.

8. ☐ The drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9. ☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____

10. ☐ Other: _____

CURTIS KUNTZ
SUPERVISORY PATENT EXAMINER
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Response to Arguments

As per applicant's argument concerning the Schopfer in view of Zhou reference to disclose detecting a 'rate of change' of loop current to detect a change in the number of active cpe's in a loop for **claims 1-5**, the Zhou reference **does** detect the rate of change and use the rate of change of loop current in determining the status of cpe's connected to the loop. Zhou (Col 11 lines 34-62) detects the loop impedance by sensing the voltage and current. The current and voltage are sensed every cycle. This is the **same** clock cycle sensing that is performed by the applicant's invention (applicant's specification page 8 lines 5-15). The applicant reads a current value every clock cycle and compares it to a value sensed at a previous clock cycle (thus determining a 'rate of change') of the current. The rate of change measured by the applicant is determined by the clock rate (execution cycle) chosen. Zhou performs the same sensing of loop current. Additionally, once a change in current (impedance) is detected, Zhou's system will sense the current value over a predetermined debouncing period (thus detecting a 'rate of change') in order to debounce the system (ie. make sure the rate of change is approximately 0 mA over an predetermined number of clock cycles) (Col 12 lines 20-65). The debouncing function detects a 'rate of change' of the loop current over the debouncing period. The 'rate of change' data element is inherent in the clock cycle sensing of Zhou's circuit. For example, when an on-hook to off-hook transition occurs, the debouncing period begins and the system will check for an offhook current level for a predetermined number of cycles. This

is the same as the rate of change of the signal because the system checks for a current level across a time period. Additionally, whenever Zhou's system detects an on-hook to off-hook transition, the system is detecting a rate of change of the current because it is sensing the change in current from steady-state (and close to zero) on-hook current to the off-hook current level over the time period of one clock cycle. As such, the Schopfer in view of Zhou reference does disclose all the elements of claim 1.

As per the applicant's arguments regarding the 'rate of change' element in **claims 6-19**, As described above, the Zhou reference teaches the 'rate of change' data element used in detecting active CPE's. As such the Schopfer in view of Zhou and Schopfer in view of Zhou in view of Jakab references do disclose all elements of claims 6-19.

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